

RC
395
N5

UC-NRLF



B 3 188 101

EPILEPSY:

ITS

TREATMENT AND CURE.

LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA.

GIFT OF

J. Burrill Levy. U. C.

Accession

86721

Class

Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation

A
PRACTICAL TREATISE
ON
EPILEPSY;

ITS
Successful Treatment and Cure,

WITH ESSAYS ON
GIDDINESS, SENSATIONS AND FAINTS.

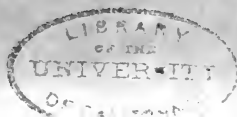
BY
S. BERRY NIBLETT, M.D.,

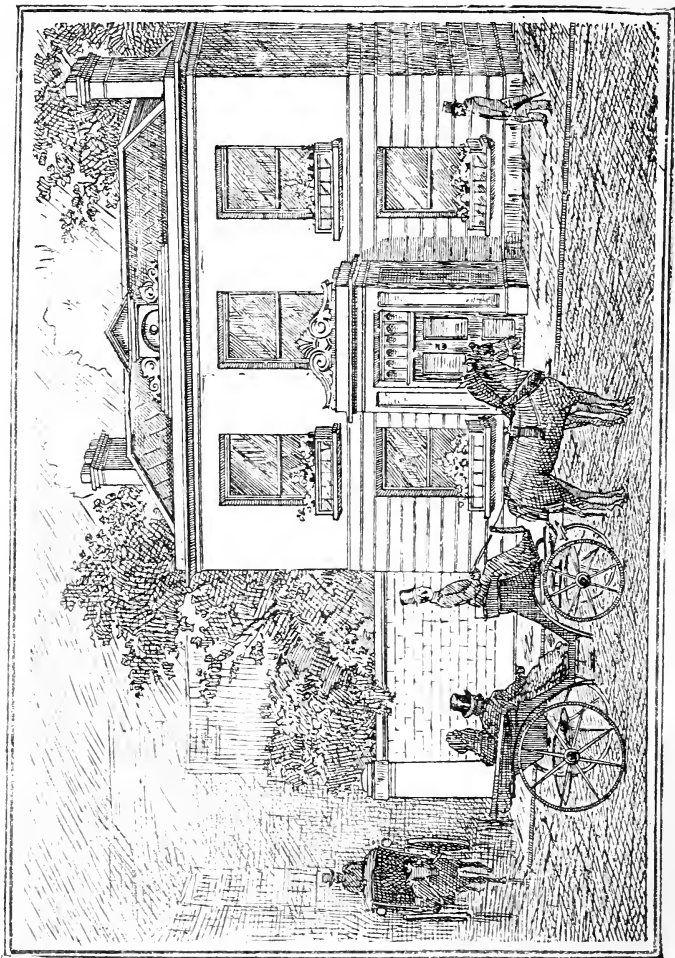
Licentiate of the Royal College of Physicians, &c., &c

Vincit Omnia Veritas.

NEW AND REVISED EDITION.

~~~~~  
*All Rights Reserved.*





Dr. Niblett's Consulting Rooms and Laboratory.

HOURS OF CONSULTATION.  
TUESDAYS, WEDNESDAYS, AND THURSDAYS,  
FROM 10 A.M. TO 1 P.M.  
BURWOOD HOUSE, 11, BURWOOD PLACE,  
HYDE PARK, LONDON.

---

I make no charge for consultation to patients desirous of taking my remedies.

To prevent disappointment and inconvenience, patients residing at a distance and wishing to consult DR. NIBLETT had better make an appointment before coming.

~~~~~  
Medicines may be obtained daily from—
10 a.m. to 6 p.m.

Saturdays—10 a.m. to 4 p.m.

Burwood Place is situated five minutes' walk from the Marble Arch, Oxford Street; it is the fifth turning up the Edgware Road on the left hand side. Nearly all the City and West End Omnibuses pass the door.

CONTENTS.



	PAGE
On Epilepsy or Fits	5
Grand Mal	6
Nocturnal Epilepsy	13
Masked „	17
Petit Mal	20
Ætiology of Convulsion	22
Treatment of Epilepsy	26
Sensations	53
Faints	57
Liver Pills	59
Chorea or St. Vitus's Dance	61
Neurasthenia of the Brain	67
„ „ Spine	69
Giddiness or Vertigo	71
Observations on Diet	75



ON EPILEPSY OR FITS, SOMETIMES CALLED FALLING SICKNESS.

(A Chronic Convulsive Disease.)

THIS disease is called by the German physicians Fallsucht; by the French, L'Epilepsie; by the Italian professors, Mal Caduco, or falling sickness.

Epilepsy was termed by the ancient Greeks "the sacred disease," on account of the magnitude of the evil, or because persons labouring under it have been thought possessed by demons.

It was said that Hercules was subject to it, therefore it was denominated the Herculean disease; but Galen says it was on account of its form or magnitude.

The Romans termed this affection "morbus comitialis," because it frequently occurred in crowded assemblies in which the passions of the people were often much excited, and it was customary to dissolve the comitia if during the sitting any person should be affected by it.

Many sufferers from epilepsy are possessed of high intellectual power; the classical cases of Julius

Cæsar, Mahomet, and the first Napoleon, each of whom suffered from the disease, may be cited as examples.

From time immemorial epilepsy has been one of the most inscrutable of diseases. All sorts of vague notions have existed regarding the nature of the affection. There are probably few physicians who have not sought, even longed with a desire almost passionate, to read its terrible secret.

I have now for a period of twenty-five years made the treatment of epilepsy my special study, and my experience in this disease is, I believe, almost without a parallel at the present day.

Two varieties of epilepsy are ordinarily recognised, the “grand mal,” or severe seizure, and the “petit mal,” or slight attack. The first is characterised by convulsions, spasm, or agitation; the latter by a very transitory loss of consciousness; there may be little or no spasm, and the attack may be so unpronounced as to escape the notice of those who may happen to be present.

I shall first consider the “grand mal,” known as Epilepsia Gravior, or severe seizure.

Major Fits.—An attack of epilepsy is generally sudden in its invasion; the person may have been but the instant before in perfect health, when he sud-

denly utters a most terrific cry and falls senseless and convulsed ; he then strains and struggles violently ; he has convulsive motions of the limbs and trunk of the body ; spasms of the muscles of the face and eyes, producing varying distortions of the countenance ; the brows are knit, the eyes fixed and staring, or turned up beneath the lids so as to display the whites, the hands are firmly clenched, the arms tossed about ; the breathing becomes gasping and difficult ; the heart beats violently ; the face is turgid and livid ; the jaws are contracted with great force ; there is gnashing of the teeth, so that the under lip, or the tongue if protruded, is apt to be severely injured ; he foams at the mouth occasionally ; a choking sound is heard in the windpipe ; he appears to be at the point of death. But presently and by degrees these alarming symptoms diminish, and at length cease ; the patient is left exhausted and comatose, but his life is no longer threatened, and in a short time he is to all appearance perfectly well. The same train of morbid phenomena recur, however, again and again, at different and mostly at irregular intervals. The epileptic attack or fit comes on suddenly, as we have just observed, and without warning ; but it is not very uncommon for persons

to have some premonitory symptom, with which they become familiar, so as to be aware of the approach of the fit. In some instances there is vertigo, or confusion of intellect; sometimes there is unusual irritability of temper, which may exist for several days previous to the fit; and in some instances there is an inordinate appetite for food. The face of the sufferer from epilepsy frequently wears a peculiar expression which it is difficult to describe. In many cases there can be observed an immobility of the countenance, a sort of fixed state of the muscles, with a strange staring appearance about the eyes: there is frequently a want of brightness about the eyes, and a disposition to suffer from attacks of headache. Associated with epilepsy we often find dyspepsia, constipation, sleeplessness, great nervousness and depression.

The fit is frequently accompanied by certain premonitory symptoms, such as pain in the head, lassitude, disturbance of the senses; sometimes a bright circle of colour appears before the eyes, or a loud noise in the ears, or it may be a bitter taste in the mouth, with some unusual dread. But in the majority of cases the fit is not preceded by any warning: it may occur either in the day, or at

night; there are often several attacks in the twenty-four hours; in other cases there are intervals of weeks or months. Repeated attacks of a severe kind are liable to enfeeble the memory, impair the intellectual faculties, and in some instances, unhappily terminate in imbecility. It is the liability of such a termination as this that invests the disease with such painful interest. The peculiar features of an epileptic seizure are due to the gradual collection of the morbid material in the blood, the accumulation going on until it has reached such an amount as to act upon the brain and explode in a fit.

The average duration of the fit is three or five or eight minutes; it may, however, last for half an hour or more. There is often a respite from attacks for three or four months; this freedom is, however, frequently followed by a bad day, on which as many as half a dozen fits may quickly succeed each other. In recent cases especially, the seizures often take place in the night, either on just going to sleep or on awakening in the morning.

Premonitory sensations of epilepsy are for the most part disagreeable, sometimes accompanied by great depression; "fear," "terror," and "horror," are words used by the patient to describe it.

A patient can sometimes resist the fit, or shake it off by moving briskly about; he may thus fight against it, and stop it altogether.

The "aura," or warning, is a striking and remarkable phenomenon; it sometimes commences in the limbs, and travels upwards towards the head; when it reaches the brain convulsions occur.

The aura commences in some instances by drawing up of the leg, and in others by jerking of the arm; sometimes a stabbing pain in the arm precedes the attacks; and muscular twitchings occur before the convulsive movements.

There are some cases of a very aggravated nature, where the whole nervous system is unstrung, and where the chief complaint is of the head. These patients complain of much uneasiness and apprehension; they are afraid to be left alone, and are likewise afraid to go out by themselves. If a knock comes to the door it startles them. They frequently suffer from severe headache, and life is a burden to them.

Case.—The following is one of Grand Mal or Major Fits; it is one of the most remarkable examples of recovery that I have ever witnessed, and one of the worst cases that have ever been cured:—A Clerk, æt. 45, had for nearly twenty years been subject to severe fits occurring irregularly by night and by day, sometimes

attended by biting of the tongue. The usual interval between the fits had been a fortnight, and on no occasion had a longer period than six weeks elapsed. The patient's mental capacity had become considerably enfeebled, so much so as to make it necessary for him to leave his situation. He began to take my medicines, and continued them without any pause for some time. The result of this treatment was an entire cessation of the fits, and there has been no recurrence of the disease. His mental vigour has returned, and he has since resumed his occupation, and been busily engaged in business.

The seizures in this case arose from functional derangement of the brain.

The look of dread and apprehension which he wore when first seen gradually disappeared, and in its place there grew up a look of recovering self reliance. Mental and physical quiet was insisted on, and the patient rapidly recovered.

I never use lowering treatment; my remedies are strengthening, and effect cures by permanently improving the nervous system, and renovating both mind and body.

Case.—This lady consulted me by letter; she writes:—"I have been recommended to write to you for advice respecting my son, who of late has been subject to fits, which I will describe to you as well as I can, and if you think you can prescribe for or send medicine that will result in curing, or at any rate do him good, I shall be glad to communicate with you further. The fit usually

comes on in the morning, say from 4 to 7 o'clock, before rising, and the first symptom is a twitching of the muscles, &c., of the face, very often drawing his mouth on one side; then the head is drawn back, and gurgling and a choking comes on in the throat. Then the twitching extends more or less all over the body, the fingers are clenched somewhat tightly, but relax in a few minutes. The time of the twitching is usually about five minutes.

"As soon as the head can be moved forward, a mixture of blood and water runs from the mouth, say about a tablespoonful or so.

"He is usually cold at the commencement, but afterwards turns hot, and sweating breaks out; this leads into a fast sleep, with heavy snoring for about an hour, and it is always nearly that time before he recovers full consciousness; and after this he feels very sick for a few hours.

"His age is fourteen years.

"The fits commenced about four months since; he has had three fits in one week, but not so many of late—he has been so much as seven weeks without one; but they seem to have returned again during the last five or six weeks.

"He has always seemed a little delicate in constitution, and it may be that he has, as we should term it, overgrown his strength. There is no violent movement of the body during the fit more than the twitching of the muscles.

"I shall be glad to hear from you at your early convenience."

This patient speedily recovered under my plan of treatment.

NOCTURNAL EPILEPSY, in which the attacks occur at night only, is very common, for a great many patients never have seizures at any other time. A considerable number of persons are attacked just as they awaken in the morning, and these usually occur between five and nine o'clock. On the other hand some sufferers are liable to be attacked at all times, both during the day and in the night.

Case.—This is an interesting one of nocturnal and diurnal epilepsy combined. The following is a sufficiently characteristic example:—A lady was suddenly seized with giddiness and fell on the ground; convulsions occurred which were rather severe; after a few months these attacks came on during the night (nocturnal epilepsy). She only knew of their occurrence by finding the tongue bitten and a splitting headache in the morning. When the seizures came on in the daytime, there was a slight aura or warning, which appeared to commence in the stomach: she described it as if everything was turned upside down. They often came on at the catamenial period, or a day or two after. Her aspect was dull and the memory bad. The attacks were occasionally followed by hysteroid convulsions, in which she was said first to jerk and then to struggle, a rigid spasm then came on, and the back was

arched and the limbs extended. Under appropriate treatment the attacks, both nocturnal and diurnal, ceased at once, and there has been no relapse.

Case.—The following is of great interest as exhibiting morbid derangements of the nerve centres. A lady writes :—"I have a daughter twenty years of age, who has been subject to fits about five years, that is, she has had six or seven falls in that time, three within twelve months.

"She is frequently subject to a twitching or starting, particularly when in a very light room, and her face is turned to the window, or more particularly when she first goes into the open air. She drops anything she may have in her hands, and sometimes makes a false step and staggers. She has always fallen in the open air, and not more than three hundred yards from home, and has generally been unconscious for a few minutes; when she gradually recovers, and then falls off in a sound sleep. She does not struggle much in the attack.

"In dull weather she is not so bad; sometimes she does not start at all."

The patient was very persevering; she followed my instructions most particularly, and was rewarded by an entire removal of the disease. I have lately seen her, and she looks the picture of health.

It is only by a careful discrimination alone of the many peculiarities of a case, and a judicious consideration of remedial means, that a successful issue can be obtained.

Persons subject to attacks of epilepsy frequently suffer from headaches, with general prostration of nervous power; the pain is often severe, the patient feels weary and weak, and the circulation is depressed. The pain is sometimes dull, sometimes shooting, occasionally accompanied by nausea or even vomiting. The amount of pain varies in different instances; but women suffer more often from this kind of headache than men.

After an attack some patients pass into a profound sleep, and if roused they appear stupid and confused, and soon lapse again into sleep, and when they awake they are irritable or peevish. Sometimes the paroxysm occurs without any subsequent stupor, but this is exceptional.

The stupor which follows a severe fit may be trifling or very profound, and its duration varies from a few minutes to several hours, ranging, however, most commonly between thirty minutes and two hours.

Epilepsy is a disease which specially attracted the attention of the ancient physicians; it was termed by the Greeks "the sacred disease." Plato ascribes the use of the term "sacred" to the circumstances of the head or brain being the part of the body affected in epilepsy. Hippocrates pointed out the

incomprehensible nature of the malady, and believed it was caused by phlegm being mixed with black bile and dispersed about the courses of the head. The complaint was also superstitiously ascribed by the ancients to the malice of demons; others were of opinion that lunar influences produced it.

Epilepsy is an important functional affection; various exciting causes may determine an attack, such as mental excitement, bodily fatigue, deprivation of sleep.

The unhappy sufferer from fits is never safe for a single moment, as he is liable to be seized at any time; it may be in a crowded street, or in descending a flight of stairs, when injury would be sure to occur; numerous persons have had fits, fallen in the fire, and been burned to death before any help could be obtained; others have fallen into water when travelling in steamboats, and been unavoidably drowned; several deaths have occurred from a seizure taking place in a bath.

A person therefore who is subject to epilepsy, requires to be perpetually watched; it is a dreadful disease to witness, and if not cured is likely to end in insanity; and not unfrequently the complaint will ultimately terminate in paralysis, with either partial or entire loss of use in the limbs.

When epilepsy results from a sudden mental shock, the first fit usually occurs immediately or within a few hours; but in some cases an interval of days, weeks, and even months may intervene, the patient meanwhile manifesting signs of nervous disorder.

A certain number of epileptics have their seizures every day, every week, every two or three weeks; the recurrence of attacks evidently has some relation to time, as marked by its natural division into days, and periods of seven days, and multiples of seven days.

“MASKED EPILEPSY.”—It frequently happens that the loss of consciousness is not complete, but may be partial in character; the patient will have no recollection of what has occurred during the attack. He will sometimes remain away from home for many hours, and when he returns will be unable to give any account of himself. He may do the most eccentric things possible, the mind being apparently in a condition of vacuity. Many of the curious cases of absent-mindedness reported by various authors are undoubtedly irregular forms of epilepsy.

The true seat of epilepsy is undoubtedly in

nerve-cells, and more especially those cells that are located in the base of the brain; but the spinal cord has also a share in the production of epileptiform convulsions.

Epileptics frequently exhibit a combination of timidity and irritability, with depression of spirits. The patient is often tremulous and nervous, and the hand sometimes shakes. When fits are brought on by a fright, it is curious to notice that occasionally the attack does not come on for many days or even weeks after the occurrence; these cases are very frequent, and usually take place in highly nervous persons, more particularly in children whose parents have suffered from some form of nervous disorder.

There is another condition called "status epilepticus" (*état de mal épileptique* of the French), in which severe attacks occur in rapid succession during a day or during several successive days. When a series of these paroxysms occur, the mind is notably impaired for a time; the patient is childish for several days, but gradually recovers the use of his faculties.

Epilepsy may exist for a long time before its existence is ascertained, if the paroxysms occur only at night. The disease is to be suspected when patients complain of awaking from time to time

with headache, lassitude, and a wounded tongue. Owing to the terrible nature of the malady, and the apprehension felt by those in company with an epileptic lest a paroxysm may occur, persons are naturally sensitive with respect to themselves or their relatives being said to have epilepsy. For this reason there is sometimes a disposition to conceal the nature of the attacks from the relatives and friends. Epileptic paroxysms may occur at all hours of the day and night; in some patients they occur only at night, and in these cases the affection may have existed long before its existence is ascertained. It is desirable to determine whether epileptic paroxysms are connected with lesions affecting the cerebro-spinal system, or whether they are idiopathic. Persisting pain in the head, paralysis, and disturbance of the intellect greater than the paroxysms will account for, are symptoms pointing to cerebral lesions.

Epilepsy has from time immemorial been considered incurable. I have studied this complaint for many years, and I can unhesitatingly say that the disease can be perfectly and completely cured under proper treatment. I am thankful to say I have cured many sad cases, after the disease had existed for several years.

PETIT MAL.—*Minor Fits*.—I will now consider the lighter forms known as *epilepsia mitior*, or “*petit mal*.” In these cases the attack may be so unpronounced as to escape the notice of those who may happen to be present; the patient is perhaps engaged in conversation, when a momentary blank in his mental process occurs; it probably does not attract attention; if he happens to be eating at the time, he will suddenly drop his knife and fork; if walking in the street, there may be a sudden loss of equilibrium, he staggers, but he rarely falls; the face usually becomes pale, and after the attack the patient often appears restless and depressed.

Epileptic attacks in which convulsions are slight or wanting, constitute that form of the disease which is called mild epilepsy, *epilepsia mitior*, or epileptic vertigo: they are sometimes distinguished as epileptoid attacks. It is important for the physician to recognise and appreciate the significance of these attacks, as they often precede the development of ordinary epilepsy. These kind of attacks are multiform; on some days they occur a great number of times, and the patient does not appear to be conscious of their occurrence.

There are necessarily many degrees of spasm, such as a little twitching of the hands, turning up of the eyes, or pallor of the face.

In very mild cases the person simply becomes giddy and slightly confused in mind for a few moments. In these slight cases the patient complains of sudden and transient loss of consciousness, followed by little spasm, and pallor of the face; in some slight seizures there may be no spasm.

There are many names given by the patients and their friends to slight seizures:—"sensations," "turns," "spells," "thinkings," "stupidities," "reveries," "forgetfulness," "giddiness," "faints," "absent."

Now these slight sensations are often the sole seizures for months or years before the first severe fit comes on. These peculiar feelings or sensations are really slight or incipient fits. Attacks of epilepsy may be so slight that strangers sitting opposite to a patient may observe nothing, although there is absolute though transient loss of consciousness.

Case.—The following example of "Petit Mal," or incomplete epilepsy, has lately come under my notice:—A boy, twelve years of age, had been subject to fits

for two years. At the first they were so slight that his mother thought he was "in a deep study," as he used to sit as if he were thinking: this attack lasted only a few seconds.

Later on in his fits he would turn up his eyes, and then also there was occasional shaking of the body. Before these attacks occurred he complained of a strange sensation at or near the stomach, or in the chest. The medicine removed all the symptoms in three months.

This variety of epilepsy, called by the French "*le petit mal*," in which there is no evident spasm; the patient loses consciousness for two or three or more seconds, and may, after that period, resume his usual employment, perfectly unaware that anything abnormal has occurred; sometimes there is pallor of countenance, and this may be succeeded by slight flushing. These slight attacks are called by the patient "faints."

It often happens that these "faints" are preceded and accompanied by giddiness, the individual thinking he is about to fall, and perhaps exhibiting some tendency to do so. He staggers, and grasps some object for support, or his legs sink under him, or he slips forward on to his side.

ÆTIOLOGY, OR CAUSATION OF EPILEPSY.—Among the predisposing causes of epilepsy, hereditary tendency stands first. It has, however, been customary to consider the existence of other nervous affections in parents, or progenitors, as



evidence of an inherited predisposition to some form of neurosis. While the possibility of the transmission of the disease to offspring should not be ignored, it is to be borne in mind as a fact which may be of inexpressible comfort to many persons, that an epileptic parentage by no means entails this or any other disease on descendants, either proximate or remote. It has been thought by some physicians that the nervous and sanguine temperaments predispose to the development of this disease. I am prepared to state most decidedly that the attacks are much more frequent whenever there is a sudden change of weather. Persons not infrequently are able to judge by experience, from certain indefinite sensations, that they will ere long have a paroxysm. There is no doubt that passion will bring on an attack in an individual subject to this affection. This idea was evidently floating in the mind of Shakspeare. When Iago works Othello into such a passionate rage that he falls insensible, Cassio asks what is the matter, and Iago replies, "My lord is fallen into an epilepsy; this is his second fit, he had one yesterday."

Libidinous excess and aspermatism have been considered one of the principal exciting causes of epilepsy, as the disease often appears after great

excesses have been indulged in. Habits of debilitation will undoubtedly produce a certain instability of the system which predisposes to the production of the affection. There is apparently an absolutely and relatively large percentage of epileptics who have been syphilitic; their number is notably larger than a few years ago was generally suspected. The precise relation which syphilis bears to a subsequent epilepsy is not known; probably it acts only as a debilitating, disposing factor, like many other agencies; but possibly in a certain number of cases syphilis may be the direct cause of epilepsy. Alcohol taken in excess appears to act on the cerebral centres; it impairs and depresses the functional power; and I have no doubt that intemperance or excessive smoking may act as an exciting cause; also fright, grief, anxiety, blows on the head, strong mental emotion, worms (especially the tape-worm), disorders of digestion, or derangement of the liver, all these may enter into the etiology of the disease.

The sight of another person in a fit will sometimes produce one in a person witnessing it. The actual cause of an attack is a sudden rush of blood to the brain; or an increased flow of blood to the spinal cord may induce a seizure. Fits are often

brought on by indigestion and a disordered state of the stomach and nerves; they sometimes arise from an impure state of the blood.

Excessive intellectual fatigue, the passionate emotions, especially grief, are often the starting point of attacks of epilepsy; long or deep mental suffering appears to predispose to the complaint; excessive fatigue produces exhaustion and acts in the same way.

Excesses of any kind cause fatigue and wear of nervous substance, and this is one of the most powerful causes of nerve derangement, and undoubtedly predisposes to diseases of the nervous system. Excessive delicacy of feeling, ardour of affection, vivacity of imagination, precociousness of intellect, all these are but too frequently forerunners of epilepsy.

Invalids in whom there is any family history of nervous derangements, paralysis, or apoplexy, or gout, must keep a strict account of their expenditure to the heathen deities (Bacchus or Venus), and they must do their best endeavours to lessen such expenditure, and to keep it within very moderate limits.

Suppressed gout may predispose to, and be one of the immediate exciting causes of epilepsy, so also may irregular or excessive emotions, also certain other chronic disorders of the nervous system.

TREATMENT OF EPILEPSY.

Heed not the twaddling of ignorance, but listen to the voice of judgment and experience.

Few higher duties can devolve on the medical man than to make obscure diseases his special study, and bring them and his patient to a favourable termination. It should always be the aim of the physician to cure the disease as rapidly and effectually as possible; every known means calculated in any way to relieve the disorder should be brought to bear upon the case.

The general tendency of epilepsy, if left to nature, is certainly to proceed from bad to worse, and there is no disease from which a sufferer more desires to be freed, or which is more certainly curable.

The idea that a remedy exists for every disease to which human beings are subject is one which must always be fascinating. We regard diseases as so many enemies, and naturally persuade ourselves that Providence has placed within our reach certain agencies by which they may be subdued.

Perhaps there is no subject in the whole range of medicine which is more attractive or less understood than epilepsy, the treatment for the most part has hitherto been vague and unsatisfactory, but modern medicine has thrown a flood of light upon its modes and causes, and has thus contributed to a revelation of knowledge which has rendered the treatment much more certain than it used to be. Efficient treatment is the very foundation of our art, the alpha as well as the omega.

To treat this disease with success, it is necessary to ascertain the circumstances under which it becomes developed in each particular case ; but each case requires to be made a special study, considering that many organs are concerned in the disordered working of the system.

The special medicines I prepare are a real vital antidote, really stopping the development of the attacks and absolutely curing the disease. When once the patient is well, the medicine must not be left off suddenly, but very gradually ; this is an essential condition for a permanent cure.

Case.—The following letter was sent me by a lady residing in the West of England:—"I have just heard of a remarkable cure of epilepsy that you have performed in the case of a young gentleman, and I therefore wish

to present to you the case of my daughter. She is twenty-two years of age, rather tall, complexion dark, black eyes, dark wavy hair, very bright and intelligent, and perceptions very keen. She was always considered healthy until four years ago. The first symptoms I noticed were as follows:—Her eyes would become fixed, with a dull vacant expression, and she would remain motionless whatever she might be doing, and this would continue for a minute or two. She would be taken in this way every few days. After these symptoms had lasted for some time, she was suddenly seized with the first severe fit, accompanied by convulsions—this kind of attack lasts about three minutes—she first turns her head on one side, the body is rigid, teeth set, her eyes flash, the face turns purple, she foams at the mouth, and makes a peculiar noise in her throat. After a fit of this kind her head aches for some hours. She has a bad attack about once a week on an average, but sometimes the interval will be longer, and then I notice the next paroxysm will be much more severe. Sometimes the attacks come on in the night.”

After due consideration, I recommended this young lady to take my remedies and she rapidly began to improve; she entirely recovered her bright, animated look, she slept well and gained strength daily. The epileptic attacks speedily began to decline, and shortly left her altogether. Her general health was completely restored, her memory returned, and she was pronounced cured.

Extract from a letter received some time after:—“I am pleased to say that my daughter has not had another attack since I last wrote to you, and now three years

have elapsed, we consider her perfectly cured. In accordance with the wish of my grateful and beloved daughter, I have recommended many patients to you, and they have all derived great benefit from your treatment.

“It will be a source of undoubted satisfaction to you to know that your great skill and careful attention has succeeded in curing my darling child of a most dreadful affliction, and you have restored her to health and happiness.”

Case.—This lady, æt. 28, sought my advice and assistance: she has been subject to epilepsy for thirteen years, and for the last three weeks has had twenty-one attacks of this kind. Her intellect had become much impaired, the memory bad, and her condition was sad and distressing to witness. She commenced the treatment I advised, and improved the first week; and since that period has never had another attack. This was considered a hopeless case, as all known remedies had been tried; the cure, however, was perfect; her memory is now restored and her faculties regained; she is so altered for the better that her friends hardly know her. After the first week of treatment she speedily improved, and still continues in excellent health and spirits. She followed my directions with the greatest regularity, and took her medicines punctually to the minute.

Case.—This gentleman consulted me by letter; he writes as follows:—“Some time ago I sent for a copy of your work on Epilepsy, and I am afraid I am suffering from the severe form of the disease as described by you. The fits occur the first thing in the morning, the same as are called by you ‘matutinal epilepsy’; there is no

warning, and sometimes many fits occur in a week, at other times one or two in a month. The attacks are followed by a severe headache; I then go to sleep and usually wake up perfectly well." Under treatment the fits ceased, and he went back to his employment and has since continued free from attacks.

In this case the affection was aggravated by excess. "he has loved not wisely, but too well." Epilepsy is often produced from this cause.

Great advantages may be obtained in the treatment of epilepsy by the judicious association of remedies, which when employed alone are more or less antagonistic to each other; when given in combination, their good effects are increased in a remarkable manner; the curative properties of the remedies appear to be increased, and new and useful properties may result by the influence of one upon the other.

The treatment of epilepsy has so strikingly improved, and the results are so much more satisfactory than they once were, that no case, however severe or of long standing, can be pronounced beyond the aid of appropriate remedies.

Case.—This patient, an English officer, wrote to me from Scotland:—"I am desirous to consult you about my health. I am thirty-one years of age, fair complexion, excitable temperament.

"I have been subject to epileptic fits for three years;

the attacks occur sometimes once a week, and occasionally I have had two fits in one week. They commence with a slight trembling of the hands, I then lose my senses, and am convulsed; when I come to, I feel bewildered and lost for about an hour afterwards; my memory is bad; I often feel great weariness; I have occasional slight attacks of giddiness.

“I have just been informed of a cure you have performed in a case somewhat similar to mine, and I therefore wish to have your advice and assistance.”

This gentleman was directed to take the necessary remedies, and received instructions respecting diet, exercise, &c. The medicine produced a favourable result, and he was completely cured, and has since continued well.

Case.—This patient consulted me under the following circumstances :—An English lady, the wife of a Member of Parliament, sought my advice. She had suffered from Epilepsy since the birth of her second child, which occurred five years ago. She had previously enjoyed excellent health.

This lady was seized with an attack just as she was going off to sleep, or just before awaking in the morning; they occurred about once in three weeks, but sometimes oftener. She was nervous and excitable, and easily depressed, and occasionally very irritable. Blue eyes, light hair and complexion, memory impaired. She said her appetite was enormous, but food turned acid on her stomach, and she had a bad taste in her mouth. She had suffered from convulsions when a child. She was the mother of five children, all healthy. In this case there was some hereditary predisposition.

She was recommended to take the medicine twice during the day, and also one dose at bed time.

The remedy was speedily successful in removing the attacks. She was quite cured, and has continued free from the disease ever since.

Case.—The following example is an interesting and instructive one; it illustrates a chronic form of epilepsy:—Mr. — was desirous of placing himself under my treatment, as an eminent provincial physician had advised him to do so. The patient, æt. 39, was tall, dark haired, and thin; he had suffered from indigestion and stray attacks of deranged liver. He began to suffer from “fits” a few years ago; they occurred at irregular intervals, the attacks being severe with tongue-biting and convulsions; he also had frequent “minor attacks,” or, as he called them, “spells,” “faints,” or “turns.” In one of these slight attacks he would turn pale and drop anything that was in his hand; he had a slight quivering of the eyelid; this minor attack lasted only a few seconds, but left him in rather a confused state. No fit occurred after commencing my treatment. He is now married and still free from attacks.

Case.—Both forms of epilepsy combined (coexistence of le Grand Mal with le Petit Mal). A gentleman consulted me for epilepsy, in which both varieties of the disease occurred; some attacks were of the fully-developed form, others were “miniature fits,” but the slight seizures predominated. Sometimes the lighter forms of a very transitory nature would occur two or three times during the day, and then there would be an interval of some days. The severe attacks occurred at

irregular intervals, and these were usually preceded by an "aura or warning," and this generally proceeded from the stomach, but occasionally from other parts, such as the leg or the arm; and then severe paroxysms often occurred in the night or early morning. The disease arose from congestion at the base of the brain, with spasms of the small blood vessels, and was cured by medicines that diminish the congestion of that organ and lessen the diameter of the blood vessels.

It is only quite recently that a true and lasting progress has been made in the treatment of epilepsy, and a flood of light has been thrown on one of the most obscure subjects in nature, and the foundation of rational methods of treatment on rational and scientific principles has been followed by inestimable advantages to mankind.

It conduces greatly to an alleviation of the unhappy condition of epileptics for them to participate so far as practicable in the interests and social enjoyments of life.

When paroxysms occur during the night, the patient should sleep in a bed with raised sides to prevent injury from being thrown upon the floor by the convulsive movements.

Case.—This gentleman, a barrister, came under my observation through the kindness of his medical attendant, who advised him to place himself under my care.

he had been troubled with epileptiform seizures for some length of time. He was 27 years of age, and had been subject to "fits" for six years; he had been under medical treatment, but of no avail. The fit comes on without a minute's warning, it draws the right hand and his mouth aside, the eyes are turned up, hands clenched, and he shivers very much; when he has a bad one he bites his tongue and foams at the mouth, and at times makes a choking sound in the throat, has a bad taste in his mouth, and a pain across the temples, with giddiness; he is very irritable at times, and cannot bear the least fatigue, and his memory is bad.

The fits have been worse the two last times at the full moon.

The patient was cured by careful treatment.

This gentleman was endowed with great intellectual powers before he was seized with epilepsy. He despaired of a cure. His memory has since wonderfully improved. The disease was caused by derangement of the nervous centres.

A diversity of remedies have been advocated as effecting a cure of this disease, and the physician is to exercise judgment in adapting them severally to individual cases, and in employing them successively in the same case.

The hygienic management of the patient is important, bodily exercise should be regular, but not excessive; the food should be nutritious, but

neither exciting nor indigestible. The importance of avoiding every alimentary substance calculated to cause gastric or intestinal irritation cannot be over-estimated. I have frequently seen paroxysms directly caused by nuts, dried fruits, pastry, heavy or badly baked bread, confectionery, excess in the use of spirits or beer. Over-heated or ill-ventilated rooms should be avoided, the clothing should be warm in winter and cool in summer. The mind should not be over-tasked, and the emotions must not be unduly excited.

If the presence of a tape worm is suspected, enquiries must be directed to ascertain whether or not one is present ; if so, appropriate treatment must be employed to dislodge it.

Patients with chronic maladies, and especially those affecting the nervous system, should have patience with the physician, and must, if they are to get well, submit to a definite course of treatment resting upon well ascertained principles, but requiring, perhaps, considerable time and steady perseverance.

There is another peculiar variety of this disease called the "Salaam Epilepsy," which consists of moving the head and body alternately backward and forward.

Case.—This is an example of the salaam epilepsy. A fair, delicate looking boy, fourteen years of age, came under my care, suffering from this rare kind of nervous derangement, in which the patient makes a low bow or salaam; but he had also occasionally experienced a severe fit accompanied by convulsions.

He had taken a variety of medicines, but with no effect, the disease still continued to increase. He was obliged to give up study, and was taken from school.

A course of treatment was advised for him with most beneficial results.

Case.—This gentleman consulted me by letter; he writes as follows:—"I am desirous of consulting you about my health. I have been subject to fits for several years. I am twenty-three years of age, and single, dark eyes and complexion, and very excitable.

"The fits occur at all times, mostly in the evening; they last about twenty minutes; I make a rattling noise in the throat, and often bite my tongue; the limbs and body are very much convulsed.

"I am quite lost at times, and I feel it most on the top of my head.

"I have the fits once or twice a week; I therefore wish to have your advice."

This patient had been subject from an early period of his life to epilepsy of varying degrees of frequency and severity. Many years back the fits appeared to occur less often, and were somewhat diminished in violence. The patient was instructed to take my specially prepared medicine twice during the day, and another dose at bed time. I afterwards heard from him that he had

been entirely free from attacks for two years. I therefore consider him perfectly cured.

Case.—The following letter was sent me by a gentleman residing in the North; he writes:—"I am subject to fits, and have been to several doctors, and taken a great deal of physic, but it has not done me any good. I have been recommended to write to you, so I will try and state my case.

"I am twenty-one years of age, brown eyes, complexion a little pallid, rather a nervous temperament, and single.

"The fits came on when I was about fourteen, without the slightest warning; they usually last about six or seven minutes, though sometimes longer. The average time between them is about two months, but I have been so long as four or five months, and as short a time as a week.

"The fit comes on without any warning whatever, and generally in the morning before breakfast. I bite my tongue, am much convulsed, and remain lost and bewildered for several hours after.

"A curious thing with me is, that nearly every morning, just after getting up, and sometimes during the day, I get what appears to be a very short fit, it cannot last more than a second, as I just fall on my knees or back, and am up again in an instant; otherwise my health, appetite, &c., is very good. I lead a healthy, out-of-door life in the country, with plenty of exercise. I get several of these short fits in the morning.

"If you will give me your advice I shall be much obliged."

This young man speedily recovered, the attacks gradually left him, and he was completely cured.

The disease in this case arose from a deterioration of nerve power, with brain weakness.

Case.—The failure of nerve power was here a most conspicuous symptom. The following letter was sent me by a gentleman residing in Scotland:—"Having perused your book on Epilepsy, I feel I should like to consult you as to my illness, and shall be glad to know if I can do so by correspondence. Mine is a case of epilepsy, and both forms as you describe appear to be combined. I have been an excessive drinker and a heavy smoker; I have also had a great deal of anxiety; and these have no doubt tended to bring on this complaint. I am seized with a severe attack once in two or three weeks, and 'faintings' very frequently, sometimes several in a week. My memory is bad, and I feel weak and depressed." The fits immediately ceased under the influence of the remedies, and have not since recurred.

The complaint in this case was brought on by dissipation and other bad habits, which had weakened his nervous system and predisposed him to nerve derangements.

Anyone who examines all his cases thoroughly will recognise the delicate shades in epilepsy, variations which are exhibited in other diseases presenting more pronounced and better defined symptoms; consequently there are evidences of

pathological action, which are not always grouped alike, and therefore all cases are not to be treated in the same manner. I ascribe the success I have had in the management of this disease to the recognition of these differences. Many epilepsies have their starting-point from the organs of digestion, and are undoubtedly produced by derangement of the liver and indigestion. These patients suffer from headache or giddiness and various other symptoms, indicating that the nervous system is out of condition.

Case.—This patient, æt. 7, is a well marked example of an epileptoid character. His mother writes:—“My little boy is strangely affected with something resembling that strange and dreadful sickness Epilepsy.

“It is not very noticeable, but appears to be growing on him. In walking he stands suddenly, apparently unconsciously, for about a minute, and if sitting he takes it quite as often, and for about the same length of time, never exceeding a minute.

“When first he was observed, he only appeared to be in a deep abstracted thought, but now if he is holding anything in his hand, one might take it and he would not know who took it, or miss it till after he recovered consciousness.”

This patient rapidly improved under my plan of treatment; nothing was clearer than that my remedies

at once took hold of the disease, and finally freed the system from it altogether.

Case.—A young gentleman, an architect, of healthy appearance, with a good personal and family history, applied to me for advice. He had been subject to epileptic fits for sixteen years; the attacks now take place about once in ten days or a fortnight, at one time they were more frequent; he was of a nervous temperament; his general health was pretty good. He sometimes complained of a feeling of numbness in his right side and leg. He commenced treatment immediately: and improved in a week after he began the medicine, and from that time he never had another attack. As he was determined to be permanently cured, I often heard from him; he continued to take the remedy for some months. This is a very important case, as the fits had continued for so many years; yet the medicine at once took effect and produced a perfect cure.

Case.—This patient came under my observation some time ago. Mary C—, æt. 17, was brought to me for my opinion of her case. The account given me by her mother was that she had suffered from fits for the past three years. The attacks recurred about every two or three weeks. In the fit, without any warning, she lost her senses, bit her tongue, and was much convulsed, remaining lost and bewildered for several hours afterwards. I told her mother that this was a most favourable case for treatment, and that my medicines would shortly cure her without any chance of failure. The remedies were successful in immediately removing

the fits. I saw her occasionally, and advised her to continue the treatment, so as to make the cure complete. I heard from her some months after, saying she was quite free from fits and perfectly well.

Attacks of epilepsy frequently arise from some slight congestion at the base of the brain, and from a sudden rush of blood to that part, consequently my plan of treatment (in those cases) consists chiefly of advising remedies that act on the capillary blood-vessels, and which, therefore, prevent the blood from flowing to the brain in undue quantities.

An important part of the rational treatment consists in enforcing observance, in all respects, of the laws of health. Disorders of the digestive system, morbid disturbance anywhere in the economy, should receive appropriate treatment, as they may in some way be concerned in the development or perpetuation of the malady. Overtaxing of mind or body, sedentary habits, the facts with regard to mental and moral influences, or the abuse of alcoholic stimulants, the immoderate use of tobacco, are all to be enquired into. It will be necessary to consider the many details which this part of the treatment involves. Under the use of my special remedies the fits will immediately

become less severe and less frequent, and finally, when the system is restored to a healthy state, they will disappear altogether, and the patient will be permanently cured.

Case.—This will illustrate a serious example of epilepsy.—Major Fits. A lady writes:—"I wish to present to you the case of my daughter, aged 22 years, of middle height, fair complexion and hair, bright and intelligent up to 20. The first symptoms I noticed, her eyes became fixed with a dull vacant expression, and she would remain motionless, and this would continue for a few minutes.

"Twelve months last May she was seized with the first fit, and the complaint has increased up to the present time. From Saturday 7 p.m. to Sunday 7 p.m. she has had eight fits, accompanied with convulsions, which last four or five minutes. She throws her head on one side, and the body becomes rigid, teeth set, eyes fixed, face turns purple, foams at the mouth, and makes a peculiar noise in her throat.

"After a fit of this kind she sleeps, and they return again in her sleep; she gets them rather worse by night than by day; and the only warning she seems to have is a fluttering in the inside, but I detect it by her peevish ways. She is very nervous and irritable, with loss of memory; but previous to these fits she was strong and healthy.

"I shall feel thankful if you will let me know if you think you can do anything for my daughter."

This young lady took the Remedies regularly accord-

ing to my directions. The beneficial effects of the medicine were soon seen. She speedily improved in health, the seizures soon became lighter and less frequent, and finally left her altogether. I have since heard that she has remained entirely free from attacks.

The disease in this case arose from weakness of the brain.

Case.—The following is of much practical interest. Mrs. W— writes :—“ Having fortunately seen one of your patients who has been cured of Epileptic Fits, I would esteem it a great favour your kindly considering the case of my son, who is subject to them since he has been in India.

“An explanation of the symptoms I have noticed previous to the fit coming on may possibly assist you to arrive at the cause.

“I first noticed the countenance flushed, with a vacant look in the eyes. If you speak to him he will answer you, but seems powerless to move, remaining so for a minute or two, when all at once he looks up, and seems to be following an object round the ceiling, and turns his head round as far to the left as possible, and would then fall down if no one was near to catch him. His mouth is drawn slightly round to the left, and his arms and legs work a little for the space of two or three minutes, when he vomits and becomes better.

“The convulsion is so slight that I can hold him myself without assistance. After he has vomited he goes to sleep for two or three hours, and when he awakes he is as well as ever, with the exception of a slight headache.

“There has been one, two, and three months between each fit hitherto. Appetite and general health good, and I have noticed for some days previous to the fit coming on he is very irritable and sleepy. He will be 18 years of age next month, height 5 feet 7½ inches, and 32 inches round the chest; weight, 9 stone 7 lbs.

“He is my fourth child, and the only one of the family suffering from anything of the kind, either on the father’s or my own side, therefore I am wholly unable to account for them. Trusting you will, by your kind advice, be able to assist me in this great trouble, for which I shall ever be thankful.”

A course of treatment effected a cure in a few months.

During a fit the patient ought to be laid on a large bed or on the floor; air is to be freely admitted around him; his head is to be raised and his neckcloth loosened; a piece of cork or india-rubber should, if possible, be introduced between the teeth to prevent injury to the tongue.

In the interval between the attacks we must endeavour to improve the general health, and especially to give tone and firmness to the nervous system. The diet must be nutritious and carefully regulated; patients taking my remedies will receive explicit directions as to the nature of the food desirable to be taken at each meal.

Many epileptics eat largely and voraciously;

they do not masticate their food properly, and often choose the most indigestible things that they can obtain. They then often suffer from indigestion, attended by a sense of fulness or distension, with much flatulence. Persons suffering from epilepsy should live by rule, and be temperate in all things. They should rise early and take regular exercise in the open air, keeping the head cool and the extremities warm; all mental excitement should be avoided.

An individual who has been attacked with epilepsy should, if possible, take partial mental rest; he should take things easy, or, as the Irishman says, "If you can't take things aisy, take them as aisy as you can."

Case.—This is worthy of perusal as exhibiting the disease in a severe form:—An Irish gentleman, æt. 37, had suffered from fits since childhood—they were brought on by a fall; the attacks have latterly been very frequent, he had often so many as six or seven every week, sometimes in the night. This was a serious case; his digestion was bad, his breath fetid, the bowels constipated; and these symptoms had lasted for some time. He at once began the specific treatment I recommended, which he continued with great regularity. After the first ten days, he was perfectly free from fits, and has never had any seizure since. I therefore think this case may certainly be pronounced cured, as two

years have elapsed and no fit has occurred. A more satisfactory case I never attended, as the serious symptoms immediately yielded to the medicine I employed, and the patient is now in good health.

Case.—This is a typical example of epileptiform attacks. A lady writes:—"Having heard of a young lady who was cured by your medicine, I am desirous to consult you about my daughter. She has been troubled with fits for three years. There is something dark comes across her left eye, her head and eyes turn to the left side; sometimes she will go round once or twice and then fall; it is sometimes so slight that it will not continue for a second, and never longer than two minutes. She is frequently troubled with sickness and headache after a severe attack, which occurs once a week or fortnight. There is scarcely a day passes without a slight attack; we think she is troubled with worms. She is thirteen years of age, fair complexion, and blue eyes.

"If you think you can do anything for her, please write and let me know."

Suitable remedies were prescribed with most beneficial results.

Case.—Mr. — writes to me from the south of England:—"I have a peculiar feeling occasionally which I can hardly describe to you. It is such a strange sensation in my chest and a tightness in my throat as though I am going to be choked, and a feeling on the top of my head as though I had a heavy weight on it, and I feel very nervous—the least sound startles me.

“When it comes on I see things swimming before my eyes, and when I come to myself I am in a cold, clammy perspiration. and such a trembling for some time after. I think it proceeds from the weakness of my heart, as I find the palpitation so much more at the time of the attacks. When I am able to attend to business a little I find myself much better, for it employs my mind; when doing nothing I feel myself so low.

“I think I have given you the particulars as near as possible. Will you please give me your opinion of my case.”

This patient required very careful treatment, as he suffered from functional derangement of the nervous system; but by fully following out my plan, he speedily obtained relief, and ultimately was entirely restored to health, and is now able to enjoy the society of his relatives and friends.

These cases present excellent illustrations of the greatly increased or rapidly acquired strength which is experienced under my combined treatment. This sudden restoration of strength has often created astonishment in the minds of relatives and of the patients themselves, who were previously suffering from considerable debility. It is, however, much more frequent to find epilepsy in those who are in other respects quite healthy, and some epileptics are remarkable for their Herculean frame and strength. Injuries to the head and sunstroke are frequently followed by epilepsy,

and in these cases both forms of the disease may co-exist at the same time. When the affection arises from this cause the memory is very liable to be affected, especially with regard to recent events. Headache and giddiness are the two symptoms most frequently complained of, and sometimes the patient becomes gloomy, irritable, and distrustful.

Apoplexy is one of the events which is frequently dreaded by epileptics and their friends; and sometimes the epileptic paroxysm is followed by profound coma and a general appearance of apoplexy. Paralysis is another nervous phenomenon constantly haunting the minds of some patients and their friends, and sometimes in severe forms of epilepsy there is some ground for the apprehension, for tumours and softening of the brain are frequently productive of paralysis.

As we advance in life our experience naturally increases; then the mental horizon expands, and much more is seen in medicine, as in everything else, than in the earlier part of life.

The real physician is the one who cures. After twenty-five years' experience in the treatment of epilepsy, I conceive it to be my duty to bring pro-

minently before the public what I believe to be the correct principles of treatment.

I am prepared to prove, beyond all fear of contradiction, that I have cured the most inveterate cases of epilepsy, after every known remedy has been tried. This terrible disorder has never been properly studied in all its various bearings ; it has, indeed, been the opprobrium of medicine. After studying this sad disorder for many years, I have been enabled to prepare remedies which are almost infallible. They have cured numerous sufferers ; and, if used according to my instructions, will immediately relieve, and, in a reasonable length of time, permanently cure the most intractable case that can exist.

It is of the utmost importance that all internal remedies should be prepared with the greatest nicety and care, and also that the ingredients should be of absolute purity and of the finest quality, consequently my remedies are always prepared by myself, and all preparations are thoroughly tested before being used. I consider it of great advantage to a sufferer from disease to be certain that his medicines are of superior quality and carefully amalgamated ; I have therefore for many years past departed from the usual rule of

physicians, and instead of giving the patient a prescription, I supply him with appropriate remedies, of the purity of which I am certain. It is only by a careful discrimination alone of the many peculiarities of a case, and a judicious combination of remedial means, that a successful issue can be obtained.

After prolonged study and extensive experimental research, I have been enabled to discover certain remedies for all forms of epilepsy and fits; they are prepared exclusively by myself, with the greatest possible care, *in different forms*, to meet the peculiarities of each individual case. No two patients can be treated exactly alike; every case must receive separate attention, and great discrimination is necessary on the part of the physician to guide him as to the administration of the remedies required. This, experience and practice alone can give, as when a medical man makes a speciality of any class of disease, he soon acquires very great facility in his treatment. The valuable medicines I prepare especially for the treatment of epilepsy will cure the most inveterate cases, even when the fits have lasted for years. None need therefore despair. After years of careful study I have arrived at the conclusion that these remedies form

the most valuable contributions that modern science has made to the treatment of epilepsy.

The success which has attended the administration of my remedies, I believe to be due not only to the peculiar form in which they are prepared, but also to the unremitting care taken in the skilful manipulation which is required.

I have for twenty-five years past endeavoured to bring my remedies within the reach of all, and as some persons desire to try a small quantity of medicine to begin with, I shall continue to supply single bottles as I have hitherto done.

The Special Medicines for Epilepsy are all the same price, 5s. per bottle.—(Post free, 5s. 6d.)

A case containing three bottles, 13s. 6d.—(Post free, 14s. 6d.)

A case of six bottles, 26s.—(Post free, 27s. 6d.)

The medicine will be securely packed and accompanied with full directions for use.

Parcel Post facilities are now so perfect that medicines can be daily and safely transmitted to any part of the Kingdom at a very small cost.

Post Office or Postal Orders should be made payable at the General Post Office, London, to

the name of S. BERRY NIBLETT, and should be crossed & Co.

Letters containing gold or notes should always be registered, to ensure their safe arrival. Cheques to be crossed.

I make no charge for consultation, either personally or by letter, to patients desirous of taking my remedies, and invalids are invited to call and have an interview with me on the usual days.

For the convenience of Invalids residing at a distance, and unable to consult the Author personally, a form of questions has been prepared, which should be filled up by the patient and returned to me accompanied with a Cheque or Post Office Order for any quantity of medicine that may be desired. This form will be forwarded on application, with any other particulars required.

All letters for consultation, or orders for medicine must be addressed to Dr. S. B. NIBLETT, Burwood House, 11, Burwood Place, Hyde Park, London.

Medicines can be safely sent to any part of the world, securely packed in extra strong cases, accompanied with full directions for use.

SENSATIONS AND FAINTS.

(*Prodromata.*)

MINOR FITS.—These conditions consist of a temporary and sudden loss of consciousness, for two or more seconds, after which the patient may resume his employment, perfectly unaware that anything abnormal has occurred. The sufferer may exhibit no loss of equilibrium, or he may lean slightly forward or to one side.

Sometimes there is pallor of countenance, and the pallor may be succeeded by slight flushing. If the attack is more severe than usual, he may be confused, or may exhibit some delusion; or he will be depressed in spirits and dull of apprehension; and he may remain in this condition for an hour or two; gradually, however, he recovers, and regains his usual health. These slight attacks are called by the French “le petit mal.”

In very mild cases the person simply becomes giddy and slightly confused in mind for a few moments. In these slight cases the patient com-

plaints of sudden and transient loss of consciousness, followed by little spasm, and pallor of the face; in some slight seizures there may be no spasm.

There are many names given by the patients and their friends to slight seizures:—"Sensations," "turns," "spells," "thinkings," "stupidities," "reveries," "forgetfulness," "giddiness," "faints," "absent."

Now these slight sensations are often the sole seizures for months or years before the first severe fit comes on. These feelings or sensations are really slight or incipient fits. These peculiar mild attacks of epilepsy may be so slight that strangers sitting opposite to a patient may observe nothing, although there is absolute, though transient, loss of consciousness. Mental emotion will produce one of these seizures in persons predisposed to them, so also will undue fatigue.

A child may be seized with one of these attacks in the middle of its play; it will stop for a few moments, and then resume its former occupation there having been neither convulsions nor staggering; simply a sudden but complete blank, lasting a few seconds. Such a seizure in an adult might be preceded by giddiness, so that he would be glad to hold some object during the attack.

A young lady, aged 14 years, presented the following features :—

Almost daily, often during breakfast, she suddenly manifested a changed expression of countenance, appearing as if frightened, sometimes uttered some exclamation, as if surprised, and her consciousness was lost for a few seconds. Sometimes the face was distorted. She never had any convulsive movements of the limbs. These “sensations” had troubled her for many months. Appropriate treatment entirely removed these symptoms, and I was afterwards informed that she never had any return of them.

The sensations in this patient were evidences of a functional nervous derangement ; under the pressure of any mental excitement they were increased both in frequency and duration.

I will give here another example. A young man had been for some months in disordered health, suffering from palpitation and mental depression. He described paroxysms of frequent occurrence, in which he felt a flash, as he termed it, originating sometimes in the chest, sometimes in the stomach, and sometimes in one of the lower extremities, rising upward, giving rise to a sense of suffocation,

and, on reaching the head, followed by momentary confusion of mind.

In some of these attacks he felt stiffness of the jaws and of the forehead. The attacks were irregular, but had occurred more or less every week for some time. After a few months' treatment, this patient recovered his former health, and no longer had the attacks before described.

In this case there was evidence of nervous asthenia, and the treatment was especially directed towards the nervous derangement. It is not uncommon to meet with persons who have overtaxed the nervous system for many consecutive years.

FAINTS.*(Prodromata.)*

A sense of faintness sometimes occurs, a sort of indescribable sensation of vagueness ; this is often followed by temporary loss of consciousness, or a feeling of choking. It is sometimes described as a "rising up through the chest" to the throat and head; it feels occasionally as if blood were rushing to the head, with a sense of pressure on the brain.

There may also be some slight twitchings of the muscles of the face, succeeded by a dazed feeling, after which the patient will exclaim, "He is all right again!" This complete blank will only last a few seconds : this is called "partial epilepsy." Faintness is the principal symptom, accompanied with a sinking sensation or trembling, or a sense of coldness or nausea. Often the patient turns giddy, but does not lose consciousness; these feelings are described as attacks of "faints." These distressing conditions are often caused by fright or anxiety, or by some cause of excitement, or by a sudden rush of blood to the brain. These attacks are not dangerous, although if they occur repeatedly they sometimes impair the memory, and show that the nervous influence is diminished.

Occasionally the patient sinks to the ground insensible and exhausted, and remains so for a short time, and then recovers, frequently with a slight headache.

Case.—The following is a characteristic example of partial epilepsy:—A lady from Edinburgh came under my care; she had suffered from epilepsy for many years, but latterly is subject to what is termed by herself and friends “slight attacks,” of the following kind:—Sometimes merely a momentary oblivion, and nothing beyond that can be seen; when speaking she will stop for a second or two, and appear evidently “lost,” her countenance losing all expression. At other times her face turns pale, she smacks her lips two or three times, makes efforts at deglutition, turns her eyes about, the face flushes, and she goes on with what she was saying before. In other attacks there is some slight distortion of the countenance. After the first period of the paroxysm is over she can answer questions, and often speaks quite rationally, but there is a strangeness in her manner for two or three minutes; and she almost universally forgets what has been said to her.

These attacks were of the kind called by the French “le petit mal;” she took the Medicine twice during the day, and also one dose at bed-time, and her diet was regulated according to my instructions. This case rapidly improved, the “faints” disappeared, and I have lately heard from her, and she assures me she is perfectly well.

DR. NIBLETT'S LIVER PILLS.

A medicinal concentration, prepared exclusively from the extracts of foreign roots and barks, combined with rare gums and distillations. The express use of this pill is to remove bilious and liver complaints, to purify the blood, strengthen and invigorate the nerves, restore the tone of the stomach and bowels, exhilarate the mind, improve the digestion, cleanse the skin and complexion.

Persons who suffer from liver disorders, indigestion, giddiness, or nervous complaints, should always keep these pills by them,—they are, beyond all doubt, a blood purifier of the very best kind.

These pills do not contain one particle of mercury or calomel, or any deleterious ingredients whatever.

Persons who lead a sedentary life frequently suffer from biliousness; the skin gets greasy and opaque, the countenance sometimes becomes puffy and bloated, or pale and thin, the lower eyelid especially sallow and discoloured; the nose is frequently spotted with black dots. Persons who suffer from costiveness are frequently low spirited, and have pains in the head, back, and limbs; they are often very nervous and irritable, from the effete materials being retained in the blood

The Liver Pills are a certain remedy for costiveness, and act most beneficially on the blood, purifying it from all bad humours; they will cleanse the complexion, raise the spirits, improve the appetite, and strengthen the functions of digestion. If the bowels do not perform their proper functions daily, numerous evils must sooner or later inevitably result. The liver will become disordered, the action of the heart will be interfered with, headache and bilious attacks will follow, the kidneys will not act properly, and the whole system will be deranged; the blood will become charged with effete matters, the skin will be muddy, and the nerves weakened; cutaneous eruptions of various kinds will be induced, pimples and blotches will come out. All these distressing conditions are speedily cured by the use of the Liver Pills; they should be taken so as to produce one action of the bowels daily.

Dr. Niblett's Liver Pills are sold in bottles, price 2s. 9d. each; post free for thirty-five stamps. Also in larger bottles, double size, 4s. 6d. each; if by post twopence extra. Directions for use will accompany each bottle. All communications to be addressed to 11, Burwood Place, Hyde Park, London.

CHOREA OR ST. VITUS'S DANCE.

(Dancing or Jumping.)

This disease generally sets in with slight convulsive movements of the face or one of the lower extremities, which gradually extend and increase in severity until they embrace one side of the body or the whole frame. This affection has been quaintly designated "insanity of the muscles," in consequence of the jerking, tremulous action of the voluntary muscles, especially those of the face and limbs. If the leg is affected it is not lifted as usual, but is dragged along as if it were paralysed. In attempting to raise anything to the mouth the sufferer often jerks it over the head, or swallows it hastily with ludicrous grimaces.

This affection generally comes on gradually; the child is observed to drop things, or to be unable to hold its book or thread the needle, the speech is also imperfect. The disease is most common in young persons, particularly in young girls between the age of six and sixteen; it may be either of a mild or severe type. The patient finds it impossible to keep quiet, whilst there is a constant restlessness of the hands and arms, and even of the legs. One half of the body is generally more

affected than the other. As the disease increases, the twistings and contortions of the features become more constant and distressing: she cannot even sit still, she writhes about, she picks her dress, and scrapes the floor with her feet. If she tries to walk she advances in a jumping manner, by fits and starts, dragging her leg rather than lifting it, and alternately halting and hopping.

Chorea usually occurs in very nervous children, and is frequently caused by fright, or sometimes a fall or blow appears to induce it. Adults occasionally suffer from this derangement, but not so often as children; in adults it is caused by strong mental emotion, but the essence of the disease is impairment of nervous power, and this impairment manifests itself in different ways, according to the nerves especially affected. This affection is usually very exhausting to the sufferer, and a good nourishing diet will be required, and sometimes a small allowance of claret or half a glass of sherry will be necessary; exercise in the fresh air is to be freely allowed, while amusement or occupation does good, yet mental excitement ought to be guarded against. This complaint usually yields readily to skilful treatment.

SPECIFIC AFFECTIONS OF THE BRAIN.

(Secondary or Tertiary Manifestations.)

Major or minor fits may be caused by the poison of syphilis in the system, even if the original disease occurred twenty or thirty years before: so also may idiopathic epilepsy be produced from this cause. The patient presents a peculiar cachectic appearance, there is some enfeeblement of the intellect, memory appears to be blunted, he will be irritable and peevish without appreciable cause, severe headache will come on often at night, he may have epileptic fits with convulsions, or only very slight attacks, such as temporary loss of consciousness, lasting only a short time. He will probably have secondary symptoms, such as skin diseases of a syphilitic nature, of a copper or ham colour, or mucous tubercles, sore tongue, loss of hair, pain in the bones of the shins, or other parts, and also a sore or ulcerated throat. If most of these symptoms are present, there can be no doubt as to the nature of

the case, especially if the patient admits having had syphilis, although that may have occurred many years since.

Constitutional syphilis will produce the symptoms before enumerated, and various other brain troubles, such as caries of a cranial bone, or alteration of the arteries of the encephalon, or it may be a gummy arteritis, and that syphilitic arteritis will often be the cause of thrombosis and softening of the tissue of the encephalon. We must always look for cutaneous manifestations if the symptoms lead to the belief that the brain or its membranes are the subject of syphilitic inflammation or softening, or a gummata.

Cerebral syphilis is of a very grave character, more especially if the individual is attacked with paralysis of any muscles or groups of muscles, or if he is weakened by excesses of any kind, or has indulged unduly in alcoholic stimulants. There is no doubt this disease does frequently produce epilepsy, although the syphilitic epilepsy may only be manifested under the form of the "petit mal," or minor fits.

Headache is regarded generally as an essential symptom of this disease, and is often combined with sleeplessness. Syphilitic deafness is not un-

frequently met with, it often proves intractable unless the treatment is undertaken at an early stage. Syphilitic epilepsy demands the utmost care, but if subjected to proper treatment it is not an obstinate affection.

This serious complaint may be brought on by bad specific treatment of the original disease, by emotional disturbances, nervous affections, excesses of all kinds, and anything that weakens the nervous system.

Excesses of any kind tend to produce nervous exhaustion. I have seen cases of epilepsy that might be attributed to this cause. Dissipation lowers the nervous energy and predisposes to disease.

SPECIFIC AFFECTIONS OF THE SPINAL CORD.*(Gummata—Sclerosis.)*

Nervous affections and epileptiform attacks come on at an advanced period of the disease, and in persons who suffer from syphilitic cachexia. The characteristic symptoms are pains in the spine, or radiating to the limbs, formication, creeping feelings, numbness, then rigidity of the muscles comes on, and is succeeded by contractions and painful cramp; these symptoms gradually become aggravated, and eventually end in paralysis, which occurs first in the lower extremities, and advances rapidly. If the genito-urinary organs are involved, the matter becomes serious. Often skin affections supervene. In other cases the bladder becomes affected with a certain degree of weakness, which is manifested by incontinence, or, perhaps, by retention of urine.

In these cases the symptoms are often rapidly developed, and a specific treatment instituted opportunely, if carefully selected, will check the farther advance of the disease.

NEURASTHENIA CEREBRALIS.

(Functional Weakness of the Brain.)

(Cerebral Paresis.)

Epilepsy is often brought on by functional derangements of the brain and the symptoms will vary considerably. Many will complain of numbness and tingling, with sensations of "pins and needles"; others will complain of a tenderness of the scalp, or a feeling of weight in the head, or shooting pains in the muscles and joints, weakness of the limbs, noises in the ears, black specks floating before the eyes, *muscæ volitantes*, palpitation, sleeplessness, the patient becomes fidgetty, the voice is feeble or trembling, he forgets words he wants to use, his heart becomes irritable, and he suffers from nervous dyspepsia, he often flushes and complains of cold hands and feet, with chills passing down the spine, he arises in the morning unrefreshed from sleep, and frequently with a dull headache, and sometimes he develops a morbid craving for stimulants. Some individuals will suffer from that

remarkable emotion called gynephobia (a special fear of women), or perhaps to a less extent from anthrophobia (fear of men and of society generally). This complaint is caused by exhaustion of the nervous system, excesses of various kinds, emotional disturbance, troubles, and anxieties; if not properly treated it will probably end in paralysis. This chronic nervous affection will often cause great mental depression.

A person suffering from neurasthenia should take a long holiday, but should not over-exert himself, sea air and warm sea-water baths are useful, two or three glasses of light wine may be taken for dinner.

NEURASTHENIA SPINALIS.

(Spinal Irritation.)

This is a functional weakness of the spinal cord, and will often predispose to epilepsy. The patient will complain of backache, general loss of power, nervous irritability, exhaustion on slight exertion, feeling of heat and cold passing up the spine, tingling sensations, formication, palpitation of the heart, faceache, pain in the side, hiccough, great weakness of the limbs almost amounting to a slight form of paralysis, stiffness and pain in the muscles, and sometimes bladder troubles, and the sufferer is in constant dread of some serious affection of the spine occurring. He or she will perhaps suffer from that peculiar abnormal emotion called claustrophobia (fear of being alone in narrow and closed spaces), or it may be from angrophobia (fear of open spaces). Spinal irritation must be distinguished from myelitis and from hyperæmia, as quite a different mode of treatment will be required. Change of air to the sea will be beneficial, or mountain air suits some cases better; warm salt-water baths are sometimes to be recommended. I have used with great success salicine in this affection, it is useful in those forms of weakness depending on wasting

of the spinal cord; it strengthens the spinal nerves and restores power to the muscles, it is one of the most valuable remedies in functional spinal diseases.

The essential symptom of spinal irritation is tenderness at some one or more points of the spinal column, and this tenderness is increased by pressure. Sometimes the skin is so tender at these points that the pressure of the clothing is sufficient to cause the wearer great discomfort: in other cases there are shooting pains, which radiate from the tender spot to the chest, neck, and shoulders.

Case.—This is one of irritation of the cervical region of the spinal cord. Mrs. —, consulted me for spinal tenderness of the upper part of the spine and great weakness, almost amounting to paralysis, of the lower extremities. The disease had come on gradually, she was pale and anæmic, even slight exercise increased the pain. She also complained of indigestion and palpitation of the heart, and at various times suffered severely from neuralgia.

My object was to improve the nutrition of the cord and spinal nerves. Under appropriate treatment she improved so rapidly in every respect that in three weeks she was able to walk with a cane, and in a few weeks more was well, being in as good health, according to her own report, as she had ever enjoyed in her life.

VERTIGO OR GIDDINESS.

(*Ménière's Disease.*)

THIS affection consists of a transitory sense of whirling round, or of falling. Surrounding objects appear to be in motion. The sufferer loses his balance for a minute or two, but often recovers himself without dropping, provided he can grasp some firm support; or the attack may assume a different form: the patient feels as if he were moving; the kind of motion which is most commonly felt to be present is that of falling or floating away. He will sometimes say he feels as if he were spinning round, or that the room appeared to him as if moving. In more severe attacks he staggers, and grasps some object for support, or his legs sink under him, or he slips forward on to his side.

An individual is said to be "giddy" when he perceives the objects about him to be in a state of motion; when he sees the walls of his room move round, or feels the ground give way, or the seat sink, as he goes to walk or to sit down. Sometimes giddiness is accompanied with nausea, and is increased with every attempt to move.

When giddiness is connected with stomach disorder it sometimes commences with dimness of

vision ; the patient sees specks floating before his eyes, objects appear to revolve around him, double vision occurs, he staggers, and sometimes he is unable to stand. Giddiness is most prevalent in advanced life; when it occurs frequently it shows there is some disturbance of the nervous system ; but it often arises from weakness of the circulation in the brain. It may be due to some poison in the blood, or it will arise from depressed vital power. If the bowels are in a constipated condition, a suitable aperient must be prescribed, to be taken as occasion requires, as it will be necessary to promote the action of the liver and bowels.

This disease often betokens great weakness, or it may be due to an impure state of the blood, or to a morbid condition of the nervous system. It may be induced by some affection of the liver or kidneys, or more frequently of the heart. Disease or weakness of the heart will cause vertigo, or "swimming in the head;" and frequently headache, with great nervous irritability.

A restorative plan of treatment will usually be indicated, with a good nourishing diet ; it will also be necessary to attend to the condition of the liver, so that it secretes healthy bile.

Giddiness will often recur if the constitution

gets impaired, or the nervous system becomes weakened. The diet may always be nourishing and sufficient in quantity to satisfy the patient's demands. Sherry and soda-water, or seltzer-water, with a little brandy in it; or claret, mixed with water, may be taken for dinner. White fish, mutton, beef, chicken, and game, together with fresh vegetables, bread and butter, and light puddings; these are all unobjectionable articles of diet.

On the contrary, the patient must avoid strong ale, raw spirits, sugar, pastry, most salt meats, and indigestible articles of diet, particularly nuts and walnuts.

EXAMPLE.—A clergyman writes as follows:—

“I have been subject to giddiness in my head for two or three years, which is now becoming much worse. I have just had a severe attack, and had to grasp something for support, and found myself screaming for help.

“When I awoke this morning the room and everything appeared in rapid motion, and that is a frequent occurrence, so much so that I feel afraid to go out. I am single, aged 33, rather nervous, very bilious, pale and sallow complexion.

“I have suffered from giddiness since the age of 16. I may add that I have always been delicate, but never had to give up my duties. I have been very cheerful and in good spirits; I also live very regularly, and do not take wine, spirits, or beer. I have nearly always a singing noise in my left ear.”

About a month after, this patient called to thank me for what I had done for him ; he afterwards wrote to say he had been wonderfully well, in fact better than he had ever anticipated.

In this case the affection was brought on by nerve derangement. By careful treatment, the giddiness was removed, and the patient restored to a sphere of usefulness.

The Special Medicines for Giddiness or Faints are all the same price, 5s. per bottle.—(Post free, 5s. 6d.)

A case containing three bottles, 13s. 6d.—(Post free, 14s. 6d.)

A case of six bottles, 26s.—(Post free, 27s. 6d.)

The medicine will be securely packed and accompanied with full directions for use.

Medicines can be safely sent to any part of the world, securely packed in extra strong cases, together with full instructions as regards diet, &c.

All communications to be addressed to Dr. NIBLETT, 11, Burwood Place, Hyde Park, London.



OBSERVATIONS ON DIET.

For any general rule of diet, none can be more definite than the rule of moderation; the patient may eat as much as he has good reason to believe he can easily digest. He must avoid all things hard, dry, tough, very salt, very sweet. Melted butter, meat pies, and fat meats must especially be avoided. The invalid should be warned to be very moderate with fermented drinks, with salted meats, with pickles and vinegar; he should take very little sugar, as all these articles are injurious.

In drink the rule of moderation must be yet more rigid. Light wines are more wholesome than the strong. The patient may take one or two glasses of good claret, or a glass or two of sound sherry for dinner if it appears to agree with him; if not, a bottle of soda-water or seltzer-water with a table-spoonful of brandy in it.

Provided the food is of a wholesome character, the appetite is the best guide in the selection of

a diet. Good roast or boiled meat, bread, potatoes, green vegetables, and farinaceous puddings made with milk, together with stewed fruits, may be taken with advantage.

Among the different kinds of meat there are great differences; lamb and mutton are easier digested than beef, and meat that has been kept until it is tender is more easily digested than meat freshly killed.

Most cooked vegetables, also bread, farinacea, potatoes, rice, &c., are soon digested.

It should be noticed that pain and oppression during the digestion of food are signs of imperfect digestion; and if beef or pork be taken by a weak stomach it will refuse to perform its functions properly, and a severe attack of indigestion will be the result. The patient will suffer from headache, flatulence, pain in the stomach, want of sleep, loaded tongue, and other symptoms of disordered digestion. Large quantities of beer or wine will often disturb digestion by producing congestion of the liver and stomach. The invalid should not exceed one or two glasses of wine for dinner, or one glass of bitter ale.

The hours of meals should be established and adhered to with the strictest regularity. The

intervals between meals should be at least four hours.

The influence of the mind on the development of disease must not be lost sight of; any mental disturbance tending to depress the nervous system is certain to be followed by injurious consequences, and therefore, all such influences should be carefully avoided, and the tranquillity of the mind as much as possible ensured. Late hours should be shunned, and the mind employed with pleasant thoughts and occupations.

The following diet-table may be recommended to most invalids, but it will of course have to be varied according to season :—

Breakfast: A large cup of black tea with half milk, or, in preference, a breakfast-cupful or two of cocoa prepared from cocoa nibs. Sole or whiting, or the lean of an underdone mutton chop, or a new-laid egg lightly boiled about three minutes and a half, or home-fed bacon, cold chicken, or game. Stale bread and a little fresh butter, or dry toast.

Dinner: Codfish, sole, whiting, smelts, turbot, or brill, mutton, venison, chicken, grouse, partridge, hare, pheasant, sweetbread, roast leg of lamb, or roast beef. Stale bread, cauliflower, asparagus,

vegetable marrow, French beans, floury potato, or sea-kale. These should be varied from day to day, and occasionally with the addition of fruit or farinaceous puddings. Beverage: Half a tumbler of claret, burgundy, or carlowitz, taken with half a pint of water, or about one table-spoonful of whisky or cognac brandy in a tumbler of cold water. In some cases a glass of good bitter ale will assist digestion, or if it disagrees, one or two glasses of good dry sherry may be taken. A few grapes, an orange, a baked apple, or perhaps strawberries after dinner.

Tea: Plain bread and butter, or dry toast, one egg may be taken if desired, two small cups of cocoa prepared from nibs, tea, or milk and water.

Supper (not later than 9 p.m.): Some white fish or a little cold meat, or some cold chicken or game. Beverage: one claret glass of light wine, or one table-spoonful of whisky or cognac brandy with half-a-pint of cold water.

Avoid rich soups, sauces, nuts, pickles, spices, salted, smoked, dried, potted, or otherwise preserved meats, veal, pork, dried fish, lobster, salmon, pies, pastry, or new bread, cheese, jams, raw vegetables, dried fruits, malt liquors, effervescing

wines, liqueurs, cyder, and all stimulants, except with food.

Avoid rapid eating, which is one of the most frequent causes of indigestion. The result of rapid eating without thorough mastication is: first, that the food is not sufficiently mixed with the saliva, which is poured into the mouth during the process of mastication, and which is an important aid to digestion; and, second, that the food is swallowed in large masses which are difficult of digestion.

Exercise is most important, as inactivity tends powerfully to engender a state of system leading to disease. Exercise to be useful should be moderate and regular; if excessive at any one time, it may produce injury by exciting the action of the heart and accelerating the flow of blood in the arteries. In all cases the amount of exercise must be carefully apportioned to the age and strength of the patient.



ESSENTIAL REMARKS.

It is of the utmost importance that all internal remedies should be prepared with the greatest nicety and care, and also that the ingredients should be of absolute purity and of the finest quality, consequently my remedies are always prepared by myself, and all preparations are thoroughly tested before being used. I consider it of great advantage to a sufferer from disease to be certain that his medicines are of superior quality and carefully amalgamated; I have, therefore, for many years past departed from the usual rule of physicians, and instead of giving the patient a prescription, I supply him with appropriate remedies, of the purity of which I am certain. It is only by a careful discrimination alone of the many peculiarities of a case, and a judicious combination of remedial means, that a successful issue can be obtained.

The success which has attended the administration of my remedies, I believe to be due not only to the peculiar form in which they are prepared, but also to the unremitting care taken in the skilful manipulation which is required.



**RETURN
TO** →

BIOLOGY LIBRARY

3503 Life Sciences Bldg. 642-2531

LOAN PERIOD 1

2

3

4

5

6

1-MONTH--MONOGRAPH

ALL BOOKS MAY BE RECALLED AFTER 7 DAYS
Renewed books are subject to immediate recall

DUE AS STAMPED BELOW

MAY 10 1984

Subject to Recall
Immediately

NOV 08 1985

Subject to Recall
Immediately

RENEWED

NOV 07 1986

RENEWED

Subject to Recall
Immediately

AUG 11 1987

BIOLOGY LIBRARY

UNIVERSITY OF CALIFORNIA, BERKELEY
BERKELEY, CA 94720

U. C. BERKELEY LIBRARIES



C063010784

BIOLOGY
LIBRARY

RC395

N5

Niwlett

86771

